

## VIGLACERA CORPORATION (VGC)

<b>Market price</b> VND15,600	<b>Target price</b> VND18,500	<b>Dividend yield</b> 4.6%	<b>Recommendation</b> ADD	<b>Sector</b> Industry
----------------------------------	----------------------------------	-------------------------------	------------------------------	---------------------------

### Short-term outlook



### Long-term outlook



### Valuation



Date 11/05/2017

Ngo Thi Kim Thanh

thanh.ngokim@vndirect.com.vn

### Price performance

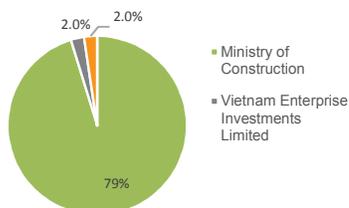


Source: VNDIRECT

### Stock Profile

52-week high (VND)	18,400
52-week low (VND)	12,465
Average daily turnover (3m)	0.113mn
Market cap (billion VND)	4,405
No of shares outstanding (mn)	309
Free float (%)	18
Beta	

### Major Shareholders



### Recommendation

Our investment view is on VGC's focus on converting their product structure into new and high quality products such as low-e glass, ultra clear glass, granite tiles, and premium porcelain. These product lines are about to become the firm's key earning drivers in the next 3 years. In addition, VGC's co-operation with Coteccons is expected to help increase VGC's sales volume of building materials to Coteccons's construction works.

Our FCFE model indicates VGC's value of VND18,500 per share. However, the likely dilution due to additional issuance for investment is expected to lead to EPS zero growth rates in 2017-2018.

**Our investment view on VGC in 2017-2018 is based on the following key points:**

**VGC is the leading firm in building materials production.** VGC accounts for 38% market share in building glass, 11% in granite and ceramic tiles, 12% in sanitary wares, and 50% in cotto tiles and roof tiles. Especially, VGC, together with 3 other leading firms in the sector, are capable of dominating retail prices in domestic market.

**Production cost of sheet glass is relatively low.** Material costs make up about 35% cost of good sold of sheet glass. According to VGC and one of the firm's distributor – DVA Renewable Energy, VGC has been buying FO fuel at the price that is 60% lower than current market price. As such, it is expected that the firm's gross margin in manufacturing sheet glass will maintain around 35.5% in 2017-2018.

**Sales of glass are about to flourish since 2018 thanks to new ultra clear glass plant put into operation.** VGC is investing into 2 new ultra clear glass plants in Vung Tau and Phu Tho provinces with total capacity of 85.8 million square meters per year. Additionally, the firm established a joint-venture with a Chinese partner – China Triumph International Engineering Group Co., Ltd (Vietnamese name: Khai Thinh) in the context that glass manufacturing is abandoned in China for fear of pollution. So sales are projected to soar by 145% in 2018 and break even point is reachable within 2 years of investment.

**Granite tiles is expected to gradually replace ceramic tiles.** In that context, we think that the Third Phase of Viglacera Tien Son Thai Binh, which will be put into operation in 2018, will double VGC's current capacity of manufacturing granite tiles and will reach full capacity within 2 years of operation.

**Premium products are on the rise in sanitary wares segment.** My Xuan porcelain factory will be put into operation in the 3<sup>rd</sup> quarter of 2017, boosting VGC's production of premium products and boosting sales of sanitary wares by 20% in 2017-2018.

**Growth prospect from Expanded Yen Phong and Phu Ha industrial zones since 2017.** VGC planned investments in 5 new industrial zones in 2016-2020 period, 2 of which are Expanded Yen Phong IZ with total area of 314 hectares and Phu Ha IZ with total area of 315 hectares. According to VGC, main customers of these industrial zones are Sam Sung from Korea and other firms from Taiwan. At estimated rates of USD75/m<sup>2</sup> in Bac Ninh province and USD35/m<sup>2</sup> in Phu Tho province, total sales from the two industrial zones are projected at VND 6,640 billion with expected profit margin of ~17%.

**Benefits from cooperation with Cotecons in providing building materials for Vincy projects.** Total floor area of building in Vincy projects amounts to 1.4 million square meters on average, equivalent to 40,000 apartments. The cooperation between VGC and CTD will help the former to supply more floor tiles and sanitary wares. Based on assumptions that selling price is VND 90,000 per meter of floor tiles and VND 1,000,000 per set of sanitary wares, and there are 2 sets of sanitary wares in an apartment, Vincy projects are expected to bring about VND 250 billion of sales with net margin of 3%, helping to boost VGC's net profit by 4% from current level.

## RISKS

**Corporate Structure.** VGC's corporate structure (e.g. parent-subsidiary model) leads to difficulties in managing subsidiaries and associates, especially in restructuring less effective ones.

**Limited bank land.** VGC's sales of current property projects have almost finished, 2 new projects are projected not to commence until later this year and not be handed over to home buyers until 2019-2020, so revenue from real estate development is likely to drop substantially in 2017-2018.

**Shortage of new customers in industrial parks.** We are aware of the risk of the lack of new leasing customers, especially FDI firms, in new industrial parks such as Phu Ha and Dong Van.

**Dilution.** The additional issuance to reduce state ownership from 92% to 56.6% during 2015-2017 leads to limited growth prospect for EPS in 2016-2018.

## 1/2017 1Q/2017 BUSINESS PERFORMANCE UPDATE

At the end of 1Q/2017 VGC reported VND 1,760 billion of consolidated revenue and VND 242 billion of consolidated pre-tax profit (up 79% yoy), mainly driven by strong growth of 2 segments, namely float glass manufacturing (with earning of VND 115 billion – up 66%yoy) and property development (with earning of VND 60 billion – up 14.8%).

Financial summary (VND)	12-14A	12-15A	12-16A	12-17A
Revenue (bn)	8.009	7.820	8.078	8.766
Revenue growth (%)		-2,40%	3,30%	8,50%
Gross margin	1.592	1.717	1.985	2.270
Operating EBITDA	683	735	866	1.055
Net profit (bn)	361	407	615	776
Net profit growth (bn)		12,50%	51,20%	26,20%
EPS	1.242	1.588	2.002	1.825
BVPS	9.961	12.427	14.133	13.500
ROAE	14%	14%	17%	16%

**Organizational structure of VGC**

Viglacera Corporation	Glass construction	1 Subordinate unit 3 Subsidiaries 4 Affiliated companies
	Ceramic tiles	5 Subsidiaries
	Bricks and tiles	7 Subsidiaries 4 Affiliated
	Sanitary ware	2 Subordinate unit 3 Subsidiaries
	Real estate	5 Subordinate unit 3 Subsidiaries 1 Affiliated companies

Source: VNDIRECT

**COMPANY PROFILE**

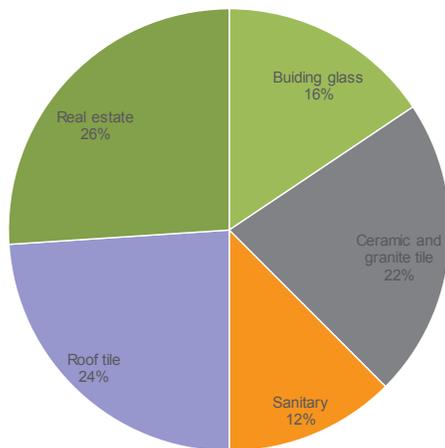
Viglacera Corporation was precursor of a ceramic and construction company established in 1976. In 2006, the company was transformed into a parent-subsidiary model, in which the parent company has their own business and manages their investment capital in subsidiaries and associates. In 2014, the corporation launched its IPO in parallel with the divestment of the Ministry of Construction from 100% to 91.5%. According to the roadmap, the Ministry of Construction will continue to reduce their ownership to 51% by 2017.

Besides, VGC is the leading enterprise in construction materials including building glass, ceramic and granite tiles, roof tiles and sanitary wares. With parent-subsidiaries organization model, VGC currently has: (1) 22 subsidiaries operating in 2 sectors namely property development and building materials production; (2) 10 affiliates (100% owned by VGC) including 5 real estate companies, 1 building glass company and 1 training school; (3) 5 affiliated companies including 3 tile producing companies, 1 building glass company and 1 import and export company.

**BUSINESS ACTIVITIES**

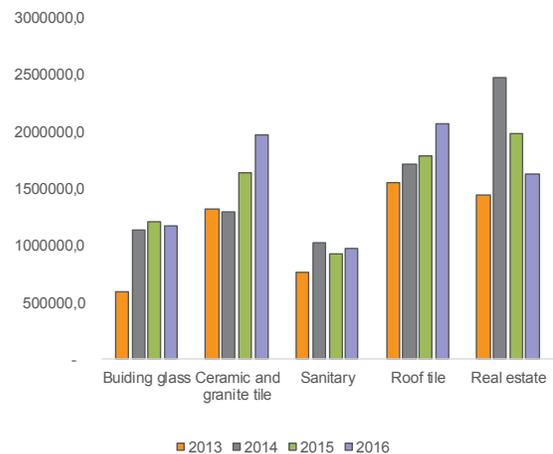
VGC operates in 5 main business scopes including building glass production (15% of total revenue), ceramic and granite tile production (21% of total sales), roof tile production (23% of total sales), sanitary wares production (12% of total sales) and industrial zone development (25% of total sales).

VGC's revenue breakdown in 2015



Source: VGC's 2015 Financial Report 2015

VGC's revenue breakdown in 2016



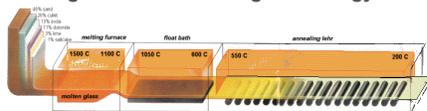
Source: VGC's 2015 Financial Report 2015

**Building glass – expected double digit growth since 2018**

**90% global demand for sheet glass is used in construction.** According to NSG, total consumption of sheet glass in the world reached 59.2 billion tons in 2015 and expectedly 84 billion tons in 2020, in which 90% is used in construction, 7% used in automobile manufacturing, and 3% for other purposes.

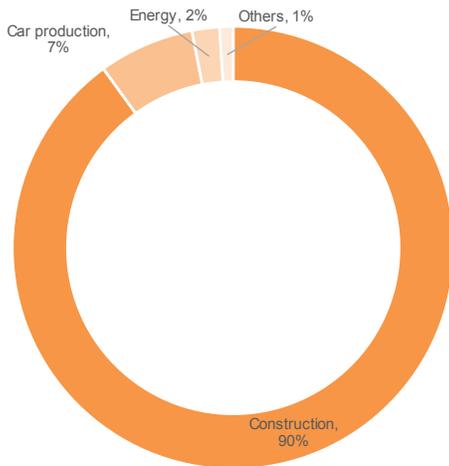
Besides, sheet glass is produced by float glass process with input materials being sand (accounting for 51%), soda ash, recycled glass and dolomite. The process uses much energy as it requires high temperature of over 1,600°C, therefore fuel costs make up as much as 21% of total costs in producing glass.

**Sheet glass manufacturing technology**



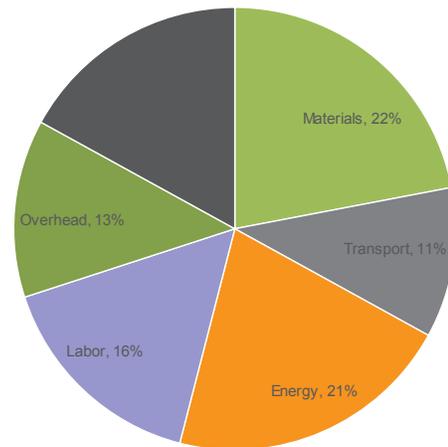
Source: Pilkington

World consumption of sheet glass in the world



Source: NSG

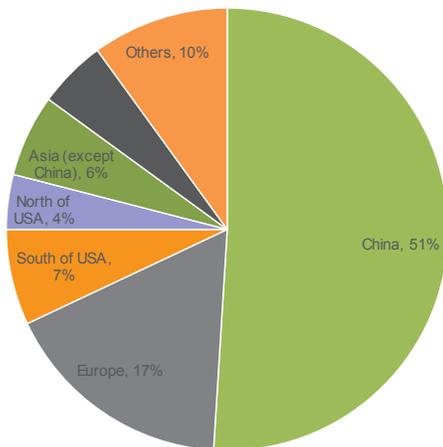
COGS breakdown for sheet glass



Source: J.P. Morgan

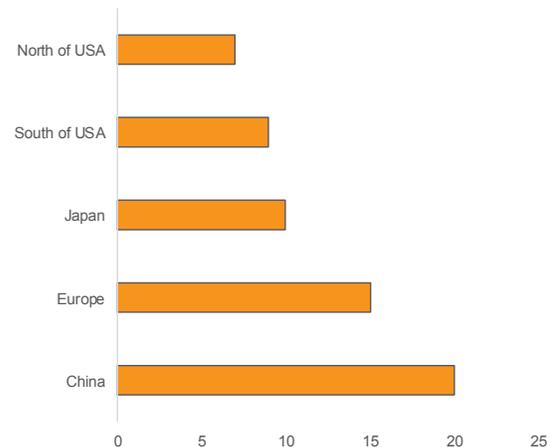
According to Nippon Sheet Glass, China is the biggest consumer of sheet glass in the world with 51% of total world consumption and 20 kg sheet glass per capita per year. Next is Europe with 17% of total world consumption and 14 kg sheet glass per capita per year. The rests belong to North America, South America, and Japan with 5-7% of total world consumption.

Sheet glass consumption by regions



Source: Nippon sheet glass

Sheet glass consumption per capita by regions



Source: J.P. Morgan

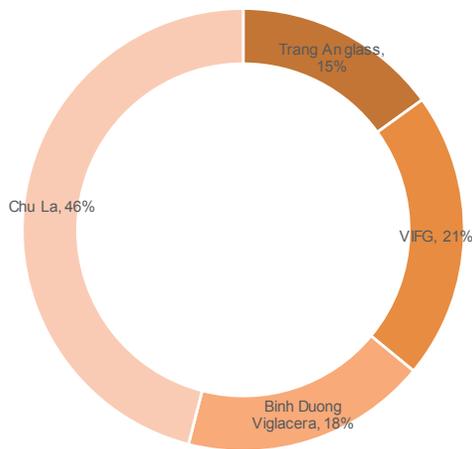
**Vietnam’s float glass market is dominated by 4 key players**

Glass products are bulky and volatile, require high transportation costs, and have considerable transport losses. As a result, construction glass imports account for only 40% of total demand, and the rest (60%) is from domestic production. At present, there are four manufacturers of float glass, namely Viet Nhat (VFG), Viglacera Glass, Chu Lai Glass and Trang An Glass. Of which, VGC and Viet Nhat - a joint venture of VGC, currently account for 38% of total market share. In our opinion, the dominating market shares of the four producers will help control output prices for glass products, stabilize production and increase domestic competitiveness with Chinese products.

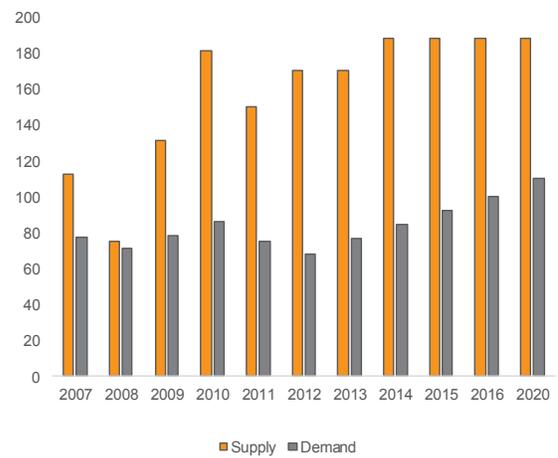
**Domestic glass products are protected against Chinese imports.** Imported glass accounts for 40% of total domestic consumption, and 40% of total imports are from China, 35% from Asia. Imported glass from China is subject to tax rate of 35%, therefore, it can be said that domestic products are still protected against Chinese imports, which helps reduce competition risks from products of similar quality and prices.

**Supply will still meet demand until 2020.** According to the Government's plan on building materials production, by 2020, the glass industry is still oversupply (based on total demand of 80 million square meters). Therefore, in the master plan until 2020, no more glass factories are permitted to be opened domestically. At the same time, total demand is expected to increase by 18.8% between 2015 and 2020.

The market share of float glass

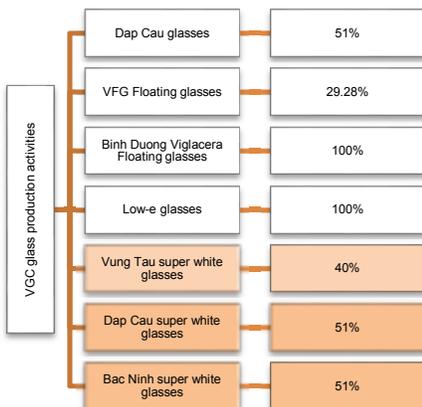


Building glass supply and demand in 2007-2020F (million m2)



Source: VNDIRECT

VGC's ownership in glass manufactories

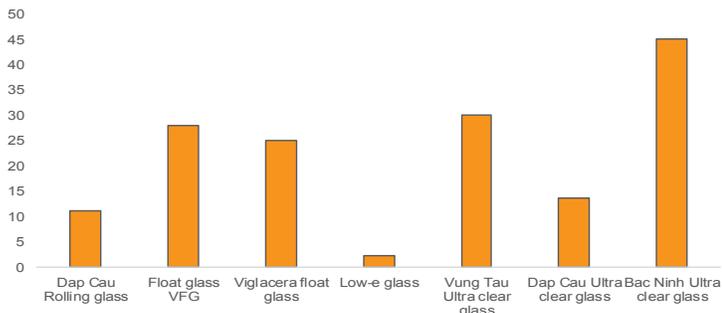


Source: VNDIRECT

Viglacera currently produces sheet glass and laminated glass in three glass mills. VGC's total sheet glass production capacity is 53 million square meters, of which 25% is made in Viglacera Float Glass (100% owned by VGC) and 25% is made in VFG Joint Venture between NSG Group (55% owned), Toyota Tsusho Corporation (15% owned) and VGC (29.28% owned) (this joint venture has a capacity of 28 million square meters). In addition, VGC also has a low-e glass production line located in the Viglacera Binh Duong float glass factory with a capacity of 2.3 million m2. VGC's rolling glass production is at Dap Cau glass factory with a capacity of 11 million m2.

In the future, VGC is investing in ultra clear glass production at three factories with a total capacity of 88.5 million square meters in Vung Tau (40% owned) in a joint venture with Nippon. They are also transform Dap Cau factory from manufacturing rolling glass to ultra clear glass in a joint venture with a Chinese partner. It is expected that all of the new plants will start operating in 2018.

Capacity of glass factories VGC (million m2)



Source:BCB VGC

We highly assess that VGC's construction glass production will be a "main point" for production and business activities, especially after 2018, with the following factors:

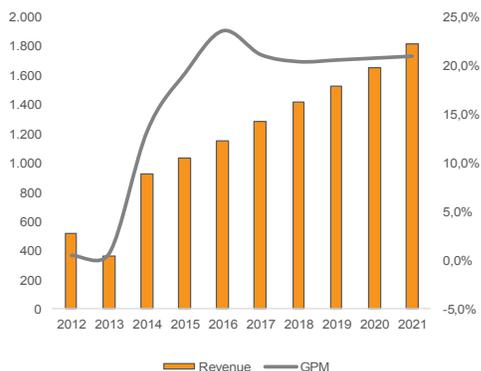
**Demands for construction glass is projected to grow by 18.8% in the period of 2016-2020.** According to the government's plan of developing construction materials by 2020, demands for construction glass is projected to grow by 18.8% in the period of 2015-2020, from 93 million square meters to 110 million square meters. With positive prospects from the market, we forecast that VGC's Binh Duong glass factory will continue operating at full capacity. VGC's total float glass consumption increased by 7% on average during the period of 2017-2018, reaching 42-44 million square meters.

Besides, we forecast that the selling price will only increase 5% on average due to (1) the competitive effect of China and the Asia region, when the preferential import tax rate will be 0% after 2018; (2) Supply is still high as twice as demand.

**Enhancing value from new products such as Low-e glass.** VGC is investing in the low-e glass production line (a type of glass coated on its surface a special compound that makes slow thermal emission and saves 20% of electricity) will start operating in March 2016.

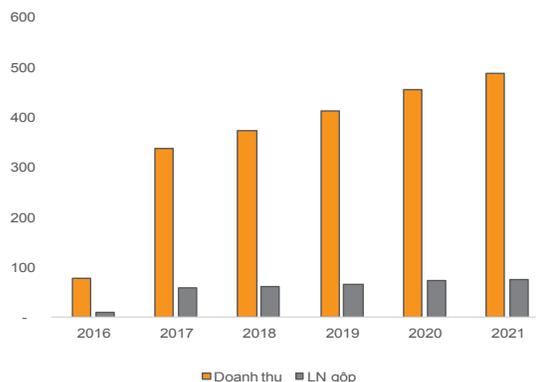
Low-e products are jointly consumed 2 million square meters per year by Euro window and Sado Group. Therefore, we believe that in 2017 the line will operate at maximum capacity of 2.3 million m3. With selling prices of 8.5 – 12 USD/m2 lower 25% than China's selling price, Low - e glass sales are projected to reach 336.8 billion VND in 2017.

Revenue and gross profit of floating glass 2012-2021F



Source: VGC

Revenue and gross profit of Low-e glass line (billion VND)

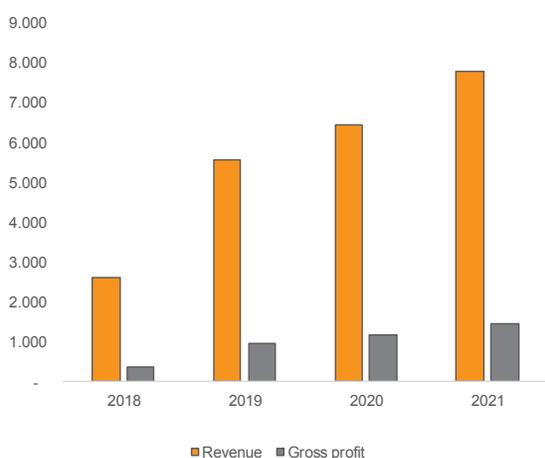


Source: VNDIRECT

**We expect that 3 ultra-white glass factories to reach upper growth by 56% after 2018.** VGC expects 3 ultra-white glass factories with a capacity of 88.5 million square meters at the Vung Tau factory (VGC owns 35%, joint venture with a Japanese partner), renovation of the Dap Cau factory and the Bac Ninh factory (VGC owns 51%). In particular, most of ultra-white glass products will be exported.

We evaluate that by using experiences gained in the Joint venture of Vietnam-Japan and Binh Duong factories, VGC will deploy new factories favourably. In addition, with the commitment to engage in sales in foreign markets, the second year (2019) is expected to go into exploitation, three factories will start to make a profit. Using sensitivity analysis, we provide forecasts for revenue and profit for factories in 2018-2021 as follows:

Revenue and gross profit of super white glasses (billion VND)



Source: VNDIRECT

Sensitivity analysis of super white glass factories

Capacity	Vung Tau factory	Dap Cau factory	Bac Ninh factory
20%	960	432	1.296
30%	1.440	648	1.944
40%	1.920	864	2.592
50%	2.400	1.080	3.240
60%	2.880	1.296	3.888
70%	3.360	1.512	4.536
80%	3.840	1.728	5.184
90%	4.320	1.944	5.832

Source: VNDIRECT

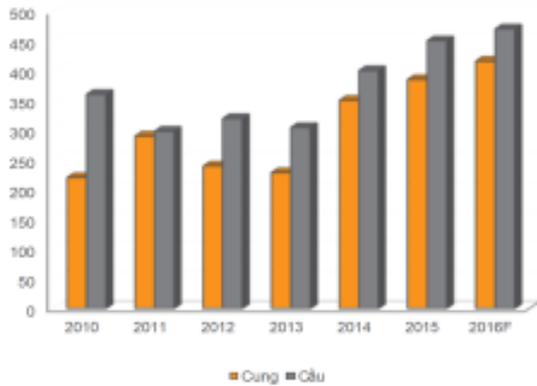
**Granite Ceramic tiles production – Enhancing the production of Granite products**

**Excess ceramic tiles supply, tend to shift investment to the production of granite tiles.** In 2016, the total supply of ceramic tiles million square meter. In addition, during the period of 2014-2016 a series of ceramic production companies increased capacity such as: the Prime increased capacity from 60 million square meter to 90 million square meter, the Hoan My increased capacity from 15 million square meter to 30 million square meter. Therefore, in the government planning of building materials industry to 2020, there is no new ceramic tiles factory will be built. At the same time, enhancing the production of granite tiles.

**Consumption demand is expected to continue to grow by 11.7% in 2017.** According to the BMI forecast for construction market in 2017, construction output value will keep growing by 5.8%. CBRE also said that the mid-end real estate market would continue to grow, and the ability to complete new projects would have a “fall point” in the later half of 2017. Using the regression and correlation analysis model, regarding the number of new houses and the demand for tiles, we found that the correlation coefficient between these two factors is quite high at 0.89 that means 1% increasing in the number of new houses may lead to 0.89% rising in the demand for ceramic tiles. Therefore, we forecast that the demand for ceramic tiles will grow by 11.7% in 2017.

**The brick industry in the country is still protected.** Import tax for brick and brick construction in ASEAN-China 's commitment (ACFTA) remain at 20% during the period of 2016-2018, which help to protect the domestic brick industry against imported products from China.

Total supply and demand of ceramic tiles (million m2)



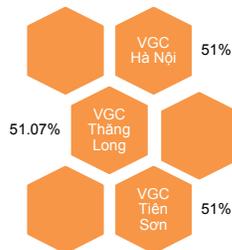
Source: VNDIRECT collected

Import tax of ceramic tiles 2016-2018

Thuế	Thuế suất			Thông tư áp dụng
	2016	2017	2018	
ASEAN (ATIGA)	5%	5%	0%	Decree 129/2016/NĐ-CP
ASEAN - China (ACFTA)	20%	20%	20%	Decree 128/2016/NĐ-CP
ASEAN - Korea (AKFTA)	10%	10%	0%	Decree 130/2016/NĐ-CP
ASEAN - Japan (AJCEP)	20%	18%	15%	Decree 135/2016/NĐ-CP
ASEAN - Australia New Zealand (AANZFTA)	7%	5%	0%	Decree 137/2016/NĐ-CP
ASEAN - India (AIFTA)	22,50%	20%	15%	Decree 136/2016/NĐ-CP

Source: General Department of Customs

The structure of VGC ownership in the tile company

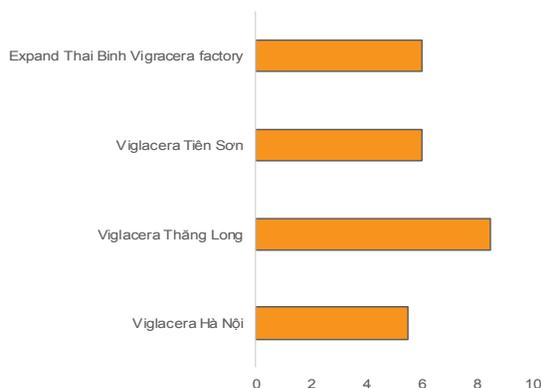


Source: VNDIRECT

**VGC owns efficient ceramic tiles factories, expanding granite production.** VGC currently owns 3 ceramic tiles manufacturing companies, including two ceramic tiles factories, the Viglacera Hanoi and the Viglacera Thang Long, with a total capacity of 14 million square meter – accounting for 6% of total market share of ceramic and the Tien Son granite tiles production factory – accounting for 7% of total market share. We evaluate that the operation of VGC ceramic tiles factory is quite stable when the distribution belongs to Viglacera Commercial Joint Stock Company.

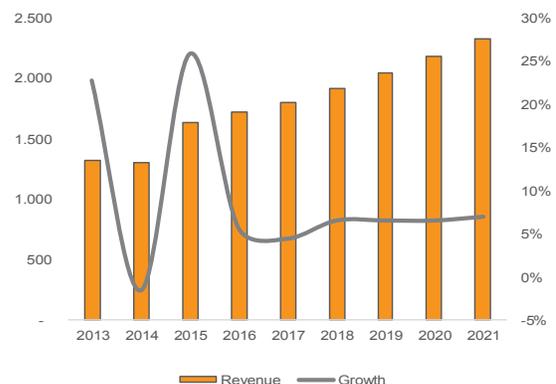
At the same time, the dealer discount policy is 10% and the debt is zero, so the selling price of VGC's bricks is lower than the same products in the market segment of 10% -12%. We appreciate that the shift towards granite tiles and VIT factories are quite efficient - currently operating at full capacity, the expansion will help VGC to maintain a 7% growth in the period of 2017-2019.

Capacity of VGC tile factory



Source: VNDIRECT

Revenue and growing revenue 2013-2021



Source: VNDIRECT

**Analyzing the profitability of the expanded VIT factory**

Capacity	2019	2020	2021
20%	14	16	19
30%	26	29	32
40%	46	51	55
50%	67	72	77
60%	87	93	100
70%	108	115	122
80%	128	136	145
90%	149	158	167

Source: VNDIRECT forecast

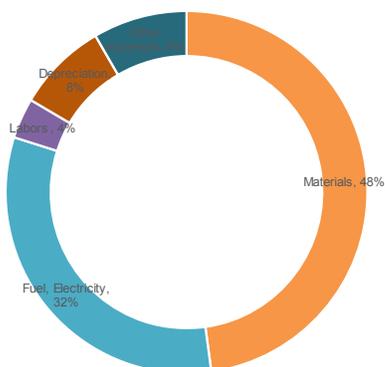
**The expansion of granite tiles.** According to the expansion plan, VGC will continue to invest in increasing granite products in Tien Son factory (VIT) and increase the capacity to 12mn m2 in 2018. As expected, VCG will have the largest granite tile market in the country with a market share of 14%. The capital investment of project is VND600bn, of which 70% will be financed by loan.

We forecast the factory will operate at maximizing capacity in the third year after going into operation, and revenue will reach 875 billion.

**Convert fuel from coal to Compressed Natural Gas (CNG).** VGC has completed the investment project of the conversion system from the fuel utilization for the Thai Binh Viglacera factory from coal to CNG. According to the sharing company, the conversion will help to ensure a stable burning temperature, reduce the wastage of processing by more than 10% compared to before.

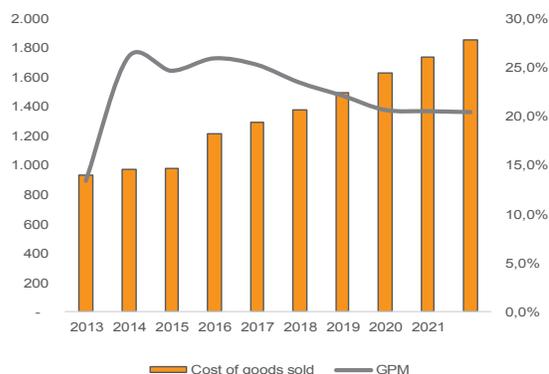
**Production costs are expected to go up due to fuel price volatility.** Fuel costs account for 32.1% of VGC’s total cost of production. An increase in oil prices will affect VGC’s production cost during 2017 - 2021. Based on the oil price forecasts from Bloomberg consensus, we estimate that a 1% increase in fuel price of will lead to a 2% increase in the cost of tile production, while the selling price uplifting will be difficult in the context of increasingly intense competition. As a result, the profit margin of ceramic tiles productions will slump from the peak of 25.9% in 2015 to 20% in 2021.

**Cost structure of ceramic tile production**



Source: VNDIRECT

**Cost structure of ceramic tile production**



Source: VNDIRECT

**Roof tiles manufacturing Operation – Divestment in red tile company**

**VGC holds a 50% market share in roof tiles and cotton tiles manufacturing.** Currently, VGC consists of 6 subsidiaries and 3 associate companies in roof tile manufacturing operation with a total capacity of 1.4bn standard tiles per year. Meanwhile, construction tiles account for 3% of nation market share. Particularly, the roof tiles field accounts for 50% of nation market share with 94bn tiles in total capacity. Besides, VCG will expand new products manufacturing such as clinker tiles, cotton tiles with an average profit margin of 15 – 17%, which is higher than construction tiles with an average profit margin of 10%.

**The profit forecast come mainly from Ha Long Viglacera.** the total profit from roof tiles manufacturing, Viglacera HaLong accounts for 80%. In business activities of tiles companies, we estimate that Viglacera Halong (VHL) is the most efficient performance of VCG. VHL

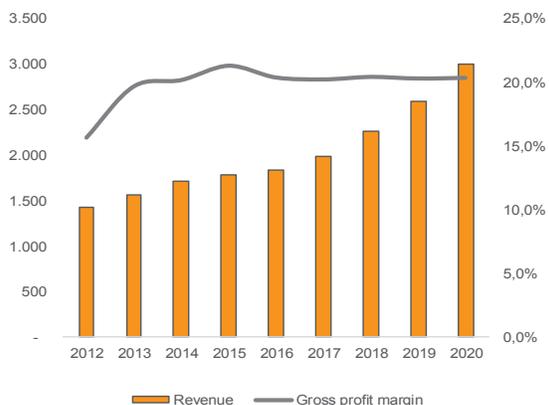
has 2 existing factories that include Hoang Bo factory with 90 standard tiles per year and Tieu Giao factory with 180 standard tiles per year. At present, the two factories are operating at maximum capacity. Gross profit margin is maintained at over 20%.

In our opinion, gross profit margin of VHL will improve significantly thanks to the strategy of continuing to uplift the proportion of tile manufacturing from 65% in 2015 to 80% in 2017. Respectively, gross margin go up to 3% as a 15% of roof tiles is higher than a 10% of net profit margin.

**The tile manufacturing companies are divested.** Currently, VGC has 5 companies in tiles manufacturing that are suffering losses and provisioned VND26.7bn. In particular, VGC successfully divested capital in Dong Trieu Viglacera, bringing the profit of VND27bn. We assess that the divestment does not affect profitability of these companies as most of them have been provisioned. Simultaneously, some companies can divest in face value such as Tu Liem Viglacera with the active position of these companies.

**The expectation of growth from the production of roof tiles, cotton and clinker tiles.** For an investment plan in clinker tiles with a capacity of 2mn m2 per year and in Gieng Day cotton factory with 7.5mn m2 per year, we estimate that the shifting of product structure help companies exploit more efficiency as net profit is at 5% higher than floor tiles. Respectively, the tendency of red roof tiles is in the period of decline. As forecast, manufacturing revenue will reach VND1,984bn (+8% YoY) in 2017, and gross profit will grow to VND400bn.

Revenue (billion VND) and gross profit margin 2012 -2020F



Source: VNDIRECT

The value of investment and redundancy at brick and tile companies ( billion VND)

Company	Investment Value	Preventive
Ha Long VGC	180.707	-
Dong Trieu VGC	-	(9.175)
Tu Liem VGC	22.876	(8.737)
Tu Son VGC	4.837	-
Huu Hung VGC	5.246	(3.825)
Ba Hien VGC	4.349	(4.349)
Hop Thinh VGC	1.305	(605)
Dong Anh VGC	3.895	-
Ha Long I VGC	2.002	-
Cau Duong VGC	3.482	-

Source: Financial Report Q4/2016 VGC

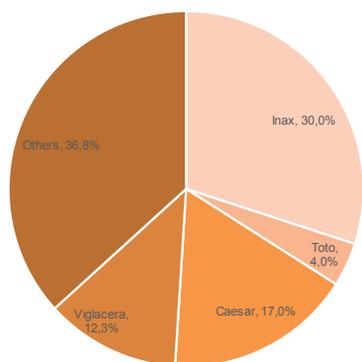
**Sanitary ware manufacturing operating – Expansion of premium products**

**Sanitary ware demand is forecasted to grow by 12.9% during 2015 – 2010.** According to the development plan for building materials industry, sanitary ware demand is projected to grow at a CAGR of 12.9% during 2015 -2020. Besides, supply will also increase by 8.9% in expanded factories of Viglacera, Inax and Toto. Therefore, supply and demand will be balanced against the current (oversupply of 2mn sets)

**VGC is one of the top 5 enterprises in producing sanitary wares.** VGC has 3 manufacturers of sanitary ware with a total capacity of 1,225mn sets/year in Phu Tho and Binh Duong, one of which produces shower with capacity of 500,000sets/year. Inax, Caesar,

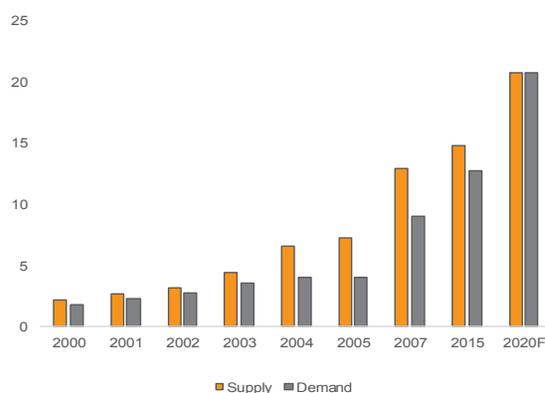
Viglacery and Toto are the four largest businesses in the sanitary ware segment. Toto entered the high-end segment with 4% of total market share, while Inax, Caesare and Viglacera competed in the mid-range segment. Meanwhile, Inax focuses on low-cost products and distribution system with a 30% market share, Caesa excels in diversity product with 17%, and Viglacera concentrates on the middle segment with a 12% market share.

Market share of sanitary ware (%)



Source: VNDIRECT collected

Supply and demand of sanitary ware (million products)

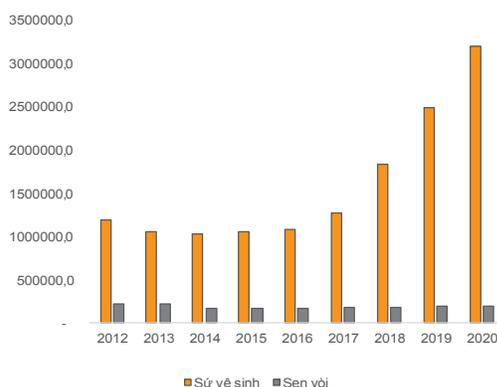


Source: QD 1469- QD/TTg

**The expectation of the new factory with the premium segment expanding will boost output by 30% during 2018 – 2020.** Currently, 3 sanitary wares factories operated at 85% of capacity, thus the possibility of growth is more difficult. In the third quarter of 2017, the company will operate the My Xuan Viglacera factory with a capacity of 750,000sets/year that enhances the total capacity to 1,975,000 sets with up 60% compared to the current. In our assessment, the increase in the proportion of premium products and smart devices will help to grow the average selling price by over 50% compared to the current. As expected, Revenue will reach VND124bn in the first year of operation.

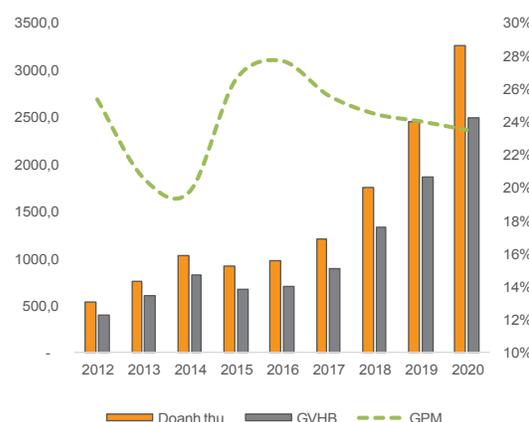
In addition, we expect the cooperation between Viglacera and Coteccon will help consumption output uplift positive in the supply of interior materials for Vinci project in 2018. As expected, the consumption output will grow by 44% and revenue will reach VND1,600bn in 2018.

Consumption of sanitary ware and shower (sets product/year)



Source: BCB VGC and VNDIRECT

Revenue and gross profit margin of sanitary ware



Source: BCTC VGC and VNDIRECT

**Real estate activities –Yen Phong Viglacera industrial Park and No.1 Dang Xa project are expected**

Industrial park leasing activity brings stable revenue.

**Expect to expand Yen Phong Viglacera industrial park and Phu Ha after 2017.** At the present, VGC has 6 existing industrial parks with a total area of 1,616 hectares, in which Tien Son and Yen Phong industrial zones are now nearly full. We estimate that revenue is relatively stable from existing industrial zones as revenue is allocated on a 49-year leasing. Moreover, total unrealized long-term revenue will be VND2,885bn from the industrial park leasing, which will be allocated on a yearly basis. We expect the annual revenue will reach VND180bn from the leased. The gross margin is about 18% in industrial park leasing.

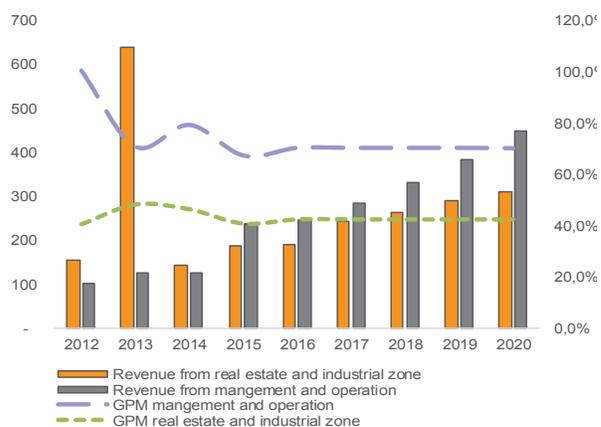
Furthermore, the company will continue to invest 5 more industrial parks during 2016 – 2020 with a total area of 314 hectares in Yen Phong Viglacera industrial park and 315 hectares in Phu Ha industrial park. According to VGC, Samsung or Taiwanese customers are still the main customers for the expansion. With rental price at about USD75/m<sup>2</sup> in Bac Ninh and at US35/m<sup>2</sup> in Phu Tho, we estimate total project revenue at USD6,640trl. The average investment rate is about 17% for new projects.

**Operation of industrial parks is forecasted to grow by 16% thanks to the new water plant.** Operation of VGC’s industrial park has a high gross profit margin of 28%. We estimate water construction of the clean water plant will be operated with 20,000m<sup>3</sup>/day in 2017. Besides, the increase in new customers will boost this revenue by 16% during 2017 – 2020

Location of industrial areas of Viglacera



The revenue from leasing industrial park and operation magement (million VND)



Source: BC VGC

Source: Financial Report VGC

**Real estate dropped by 27% in revenue during 2016-2017 as most of projects completed sales.** Most of VGC’s old projects in the real estate sector such as No 1, the segment of low-income housing Doan Xa phase 1 has completed the sale. According to our estimates, revenue from old projects is only about VND 295 billion.

To expect for the No 1 expansion project and Dang Xa 3 project in 2018. In 2017, VGC will continue to implement two projects - the No 1 expansion project with an apartment building and a building office for

rent. Total projects area of 200.000 square meters, invested VND 3.000 billion. VGC will cooperate with Cotecons in building and operating these two buildings. We estimate that with the selling price of this area is about VND 20 million / m<sup>2</sup>, the internal IRR of the projects will be 18.2%.

In addition, VGC will also implement the Dang Xa 3 social housing project, with a total investment of VND 2.800 billion and a total of 3,000 units. We estimate the internal IRR of this project will be about 16.5%. It is forecasted that the two projects will start selling in 2018 with sales reaching about VND1,100billion.

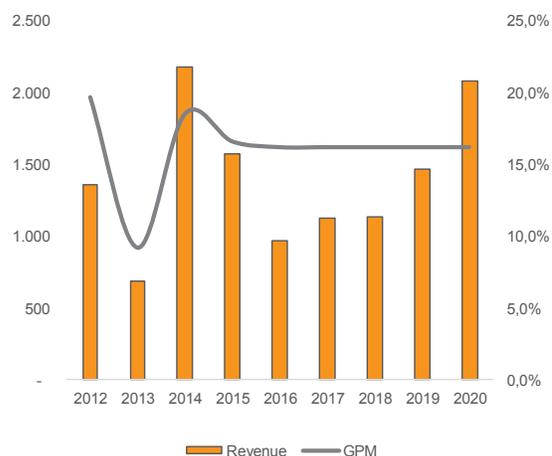
However, we are concerned about the cheap clean land of the company is not much available, so the ability to continue developing real estate projects after five years will be quite difficult.

**The residual turnover of real estate projects**

Projects	Business investment left (million VND)
CC No 1 Residential (Phase 2) - Ha Noi	8
Residential 671 Hoang Hoa Tham (Phase 3)	3
New urban Dang Xa (Phase 1) - Ha Noi	27
New urban Dang Xa 2 - Ha Noi	41
Xuan Phuong Urban Functional area	6
Kim Chung - Dong Anh Urban area	15
Office and Housing in Bac Ninh roundabout	4
Residential area and services for officers and wor	153
Apartment and Service of Tien Son industrial par	39
New urban Dang Xa (Phase3)	5.267
Thang Long No.1 expansion	13.680

Source: BCB VGC

**Revenue and gross profit margin of real estate activities (billion VND)**



Source: The financial report VGC

**FINANCIAL ANALYSIS**

**Turnover shifted to the production of building materials**

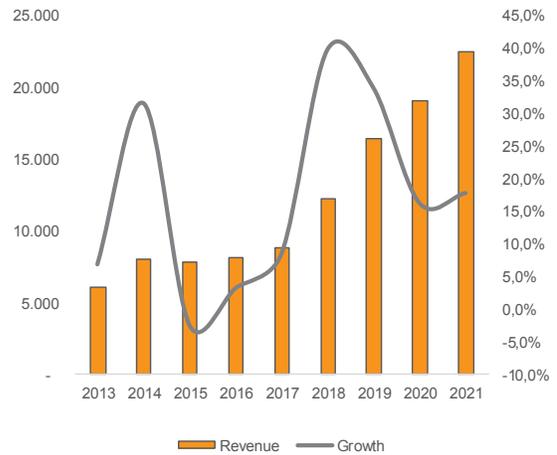
We estimate that VGC will shift production to the building materials sector, with construction glass contributing a major portion of 2018 with an increase from 15% to 37% from the project of Low-e glass and ultra-white glass. At the same time, the real estate segment will gradually reduce the proportion from 26% to 14%, as the company has only two key projects: No 1 expansion and Dang Xa new urban area phase 3. Total revenue forecasted for 2018 will reach VND 12.236 billion.

Density of VGC business sectors (%)



Source: The financial report VGC and VNDIRECT forecast

Revenue and growth of VGC 2013-2021



Source: VGC and VNDIRECT forecast

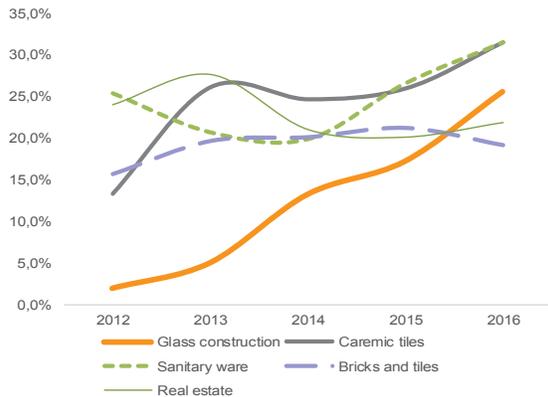
\*Inside : 2015; Outside: 2018F

**Gross profit margin improves**

We estimate that the shift to industries such as construction glass and sanitary porcelain will help VGC's profit margin to be improved throughout the upcoming years. In which, profit margin of glass production had a remarkable improvement from 5% in 2013 to 25.5% in 2016 thanks to product diversification and Binh Duong factory's operation at full capacity which decreased fixed cost to the same level as the early years.

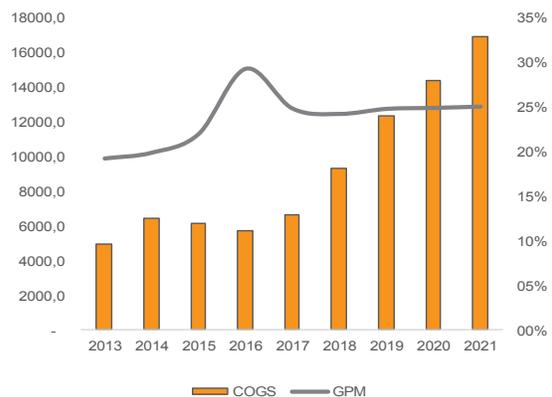
Meanwhile, profit margin of floor tiles production with growth strategy in granite tiles in 2017 will lift profit margin from 25% to 31%.

Gross profit of VGC activities



Source: VNDIRECT

Gross profit margin VGC 2013 - 2021F

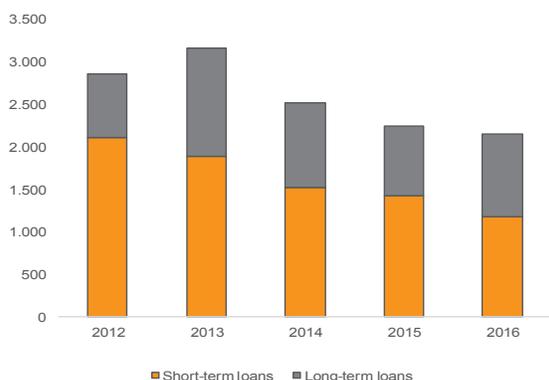


Source: VNDIRECT

**Low Debt structure**

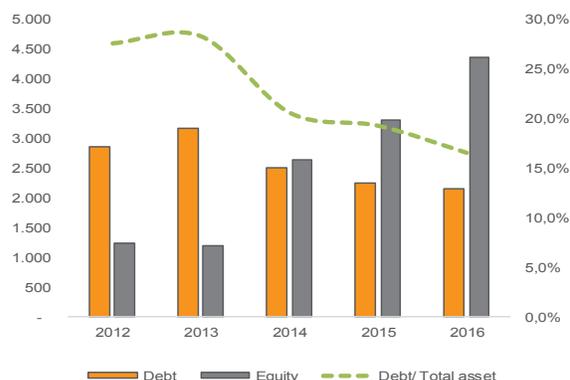
The debt to total assets ratio of VGC had a downward trend since 2012-2016, in which we estimate that the main causes to reduce the debt ratio in 2016 are: (1) In 2014, the company equitized to the public for the first time helping owner’s equity to increase by 138% from VND1.110trl to VND2.650trl and decreasing short –term debt; (2) In 2016, the company raised capital by 16% from VND2.650trl to VND3.070trl with the method of decreasing Ministry of Construction’s capital through individual offers from 92.2% to 78.8%. At the same time, VGC also paid off the loan from Binh Duong glass factory.

**Debt structure of VGC 2012-2016 (billion VND)**



Source: The financial report VGC

**Liabilities/Equity of VGC 2012-2016**



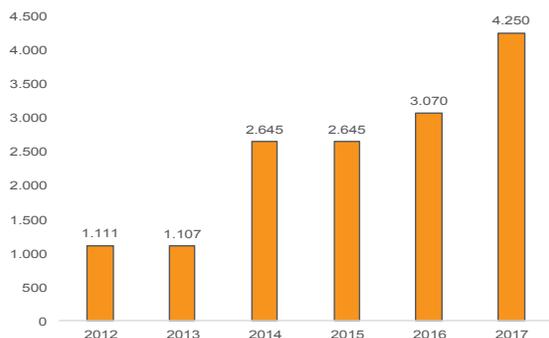
Source: The financial report VGC

**Increasing owner’s equity by 28% in 2017 – 2018**

According to the plan, VGC will continue to raise owner’s equity by decreasing Ministry of Construction’s capital from 78.8% to 56.6% with the initial selling price of VND12,200/share. We evaluate this VGC’s movement as following:

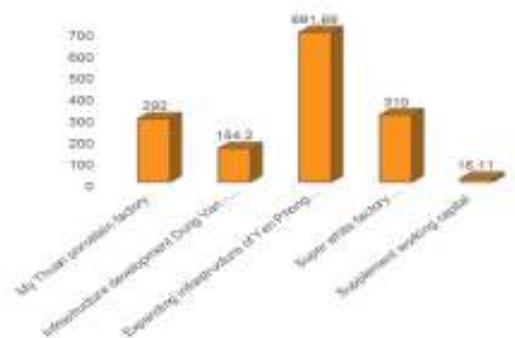
- (1) Private offering of book value makes it easier for the company to attract new capital and reduce the pressure of debt financing for investment into new projects such as Bac Ninh super-white glass factory, Dong Van industrial park, expansion of Yen Phong industrial park and My Xuan porcelain factory.
- (2) With the fairly rapid dilution, we estimate that although EAT rises by 18.9%, EPS in 2017 after dilution declines by 14.3%. Therefore, during 2016-2018, we expect that EPS will have no growth.

Equity capital 2012-2017F



Source: VGC

Funding projects to raise capital 2017 VGC (billion VND)



Source: VGC

**BUSINESS RESULTS**

We forecast that VGC will reach VND8.675trl in revenue (+8.5% YoY) and VND775bn in EAT (+26.2% YoY), equivalent to EPS after dilution of VND1,825/share based on those factors:

**Projected revenue in 2017 is expected to reach VND8.675trl**

Glass production is expected to be VND1.8trl. In which, VGC will have to produce float glass because Binh Duong factory already runs at its full capacity and Viet Nhat joint venture will stop producing to be in maintenance in 3Q2017. Therefore, it is estimated that there will be a growth of 7% YoY in revenue of float glass production. Meanwhile, in 2017, low e glass production line will run at full capacity due to the rising demand and 2 business partners Sado and Eurowindow’s offtake agreement to buy VND2mn/2.3mn m<sup>2</sup>; thus, projected revenue from low e glass product line will be VND336bn, compared to VND78bn in 2016.

Floor tiles production is forecasted to rise by 4% reaching VND1.789trl. We estimate that ceramic market is difficult to grow due to competitive factor and VIT’s granite factory is already running at full capacity.

Shower hose production increases by 23.3% reaching VND1.202trl because My Xuan factory will begin to operate in 3Q2017. In which, according to My Xuan factory’s orientation, it will produce more high-end products at average selling price of VND2mn.

Real estate and industrial park’s activities are expected to reach VND1.740trl (+17% growth rate), of which KCN’s revenue is relatively stable at VND240bn.

Roof tiles production decreases 3-5% capacity due to restructuring and selling some factories. However, we estimate that financial revenue will increase during the selling factories’ activity.

**Gross profit margin is expected to rise by 1.32% YoY due to the decreasing fuel cost of glass production of 15%**

Recent fuel cost comprises 30-35% of glass, floor tiles and sanitary porcelain production. According to the company’s information and information from DVA renewable energy (one of VGC’s distributors), VGC’s negotiated buying price of FO oil is set at 60% lower than market price. Therefore, we forecast that gross profit margin of flat glass production will be maintained at 35.5% in 2017-2018.

**Expectation from cooperation with Coteccons in distributing building materials to Vincy's project**

Total floor building area of Vincy's project in each year is 1.4mn m<sup>2</sup> on average, equivalent to 40,000 apartments. We estimate that the cooperation between Coteccons and VGC will help VGC to consume more floor tiles and sanitary porcelain products. Therefore, with the average selling price of VND90,000/m<sup>2</sup> of floor tiles and VND1mn/sanitary porcelain set and each apartment will consume 2 porcelain sets, projected revenue from the project will be VND250bn and projected net profit might be 3% helping VGC to increase 4% of EAT compared to now.

Meanwhile, we evaluate that the cooperation will stimulate VGC's consumption of CTD's building materials at the time that CTD is promoting M&A activity of real estate plans and D&B.

**VALUATION**

Using the FCFE valuation method with a WACC discount rate of 12.99%, debt cost of 11.88% and long-term growth rate of 2%, we determine the fair value of VGC's share at VND18,468/share.

**DISCLAIMER**

This report has been written and distributed by Research Department, VNDIRECT Securities Corporation. The information contained in this report is prepared from data believed to be correct and reliable at the time of issuance of this report. Unless otherwise stated, this report is based upon sources that VNDIRECT considers to be reliable. These sources may include but are not limited to data from the stock exchange or market where the subject security is listed, or, where appropriate, any other market. Information on the company(ies) are based on published statements, information disclosure and announcements of the company(ies), and information resulting from our research. VNDIRECT has no responsibility for the accuracy, adequacy or completeness of such information.

All estimates, projections, forecasts and expression of opinions contained in this report reflect the personal views and opinions of the analyst(s) responsible for the production of this report. These opinions may not represent the views and position of VNDIRECT and may change without notice.

This report has been prepared for information purposes only. The information and opinions in this report should not be considered as an offer, recommendation or solicitation to buy or sell the subject securities, related investments or other financial instruments. VNDIRECT takes no responsibility for any consequences arising from using the content of this report in any form.

This report and all of its content belongs to VNDIRECT. No part of this report may be copied or reproduced in any form or redistributed in whole or in part, for any purpose without the prior written consent of VNDIRECT.

.....

**Phuong Nguyen Mai – Research Director**

Email: [phuong.nguyenmai@vndirect.com.vn](mailto:phuong.nguyenmai@vndirect.com.vn)

**Ngo Thi Kim Thanh – Senior Analyst**

Email: [thanh.ngokim@vndirect.com.vn](mailto:thanh.ngokim@vndirect.com.vn)

**VNDIRECT Securities Corporation**

1 Nguyen Thuong Hien Str – Hai Ba Trung Dist – Ha Noi

Tel: +84 439724568

Email: [research@vndirect.com.vn](mailto:research@vndirect.com.vn)

Website: <https://vndirect.com.vn>